

AMENDMENTS TO THE DRAWINGS

The attached "Replacement Sheets" of drawings, which include Figures 11 and 12, replace the original sheets including Figures 11-12. The Replacement Sheets include a prior art legend.

Attachment: Replacement Sheets

REMARKS

Claims 1-7 are currently pending. Claims 1-7 have been amended to clarify antecedent basis and remove idiomatic errors. Support for the amendments can be found in the written description, drawings, and claims as originally filed. No new matter has been added. The Examiner is respectfully requested to reconsider and withdraw the rejections and objections in view of the amendments and remarks contained herein.

DRAWINGS

The drawings stand objected to for certain informalities. To overcome the objection to FIGs. 11-12, Applicant has submitted "Replacement Sheets" for FIG's. 11-12 that include a prior art legend.

Regarding claims 1 and 4, drawings are only required under the patent law when "the nature of such subject matter admits of illustration by a drawing." 35 U.S.C. § 113. All the limitations of claims 1 and 4 are depicted in the drawings except for the limitation relating the diameter of a sphere defined by an antenna radiator to a wavelength of an electromagnetic wave. This is subject matter that does not admit of illustration. Antennas are shown functionally, such as at 410 and 411 in FIG. 8. Attempting to convey an upper limit on the size of an antenna radiator in a functional block diagram is not feasible. Further, the size is limited by a wavelength of an electromagnetic wave, which also cannot be represented in a functional block diagram. In addition, attempting to depict this size constraint is not "necessary for the understanding of the subject matter to be patented." 35 U.S.C. § 113.

With respect to the remaining objections, the objected-to limitations are already depicted in exemplary form in the drawings. There is no requirement that the names used in the claims be identical to the language used in the figures. For example, FIG. 10 depicts an evaluation unit 601, a control unit 409, and a feedback unit shown as the line between elements 601 and 409. The first and second internal wireless communication control units are shown as logic circuits 407 and 418, respectively. The internal wireless control unit is shown as CPU 401.

Applicant respectfully requests that the Examiner withdraw the objections to the drawings.

SPECIFICATION

The preliminary amendment filed August 31, 2006 includes amendments to the specification. These amendments fix various typographical errors. For example, the error identified by the Examiner of “the carrier wave oscillator 406” has already been remedied by replacing that language with “the carrier wave oscillator 409.” Applicant therefore respectfully requests that the Examiner withdraw this objection.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanazawa et al. (U.S. Pat. No. 7,283,853) in view of Burdick et al. (U.S. Pat. No. 6,424,820). Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanazawa, Burdick, and Bridgelall (U.S. Pat. No. 6,895,255). These rejections are respectfully traversed.

Claim 1 recites first and second transmission units that perform communications using electromagnetic waves. The Office Action asserts that a keypad part 101 and an LCD part 102 of the clamshell phone in Kanazawa anticipate these limitations. However, neither the keypad part 101 nor the LCD part 102 communicates using electromagnetic waves. Electromagnetic waves propagate wirelessly in free space, while the electrical signals used by the keypad part 101 and the LCD part 102 propagate within conductors.

Claim 1 further recites “a reception unit that receives said second electromagnetic wave from said second transmission unit.” Even if the LCD part 102 were the second transmission unit, the Office Action’s assertion that the LCD screen 152 was the reception unit would then be impossible. The LCD screen 152 is contained within the LCD part 102, and therefore would be receiving signals from itself. The LCD screen 152 and the LCD part 102 cannot therefore reasonably be read as the reception unit and the second transmission unit.

At a high level, the clamshell phone 100 in FIG. 4 of Kanazawa is a standard design, where the separate halves (keypad part 101 and LCD part 102) communicate through a standard flexible circuit. There is therefore no need for the electromagnetic wireless communication recited by claim 1. The apparatus of claim 1 eliminates the need for a flexible conductor, which can deteriorate, between the halves of the phone.

Claim 1 further recites “an antenna including a radiator that defines a sphere, where the diameter of the sphere is smaller than $1/(2\pi)$ of a wavelength of said second electromagnetic wave.” Burdick does disclose an antenna including elements 132, 133, and 134. However, Burdick is entirely silent with respect to the size of a radiator of that

antenna. Specifically, Burdick is silent with respect to the diameter of a sphere that encompasses the radiator of the antenna, as claim 1 recites. In col. 34, lines 34-37, Burdick defines the term: “the near field.” However, there is no discussion of how the size of an antenna radiator relates to this defined term. Defining a term does not anticipate claim 1’s limitation of limiting the diameter of a sphere encompassing an antenna radiator to a wavelength divided by 2π . Kanazawa and Burdick therefore fail to teach or suggest every element of claim 1, as required under 35 U.S.C. § 103.

Independent claims 4 and 7 define over the art of record for at least similar reasons as claim 1. Claims 2-3 and 5-6 depend from claim 1 and are therefore in condition for allowance for at least similar reasons. Bridgelall does not remedy the deficiencies described above of Kanazawa and Burdick.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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